UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,477	10/23/2000	Gilbert Moineau	SWA-003 US	8162

7590 03/15/2006	EXAMINER
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ART UNIT	PAPER NUMBER
2155	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/830,477	MOINEAU ET AL.
Office Action Summary	Examiner	Art Unit	
	Kevin Bates	2155	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 December 2005*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-9,11-19,21 and 22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-9, 11-19, and 21-22* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

This Office Action is in response to a communication made on December 23, 2005.

Claims 1, 4, and 13 have been amended.

Claims 10 and 20 have been cancelled.

Claims 1-9, 11-19, and 21-22 are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9, 11-19, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia (6023724) in view of Allard (5729689).

Regarding claim 1, Bhatia teaches a network modern device connecting a Local Area Network (LAN) to a remote network (Column 4, lines 36 – 39), comprising: a local store containing a list of host names and attribute data (Column 6, lines 1 – 8): a Domain Name Service (DNS) relay module (Column 6, lines 15 – 18); and a router having a LAN interface connected lo said LAN (Figure 1, element 340; Column 14, lines 19 – 20), a local connection to said DNS relay module and a network connection, to said remote network (Column 4, lines 45 – 47; Column 6, lines 11 – 14), wherein said

DNS relay module uses said list and said attribute data to respond to requests, received

from said LAN via said muter on said local connection (Column 6, lines 1 – 8), for a

numeric address in response to a domain name when said domain name requested is

on said list (Column 6, lines 15 – 18), and said DNS relay module generates a DNS

request and transmits said DNS request to an external DNS on said remote network via

said local connection to said router, and said DNS relay module returning a reply from

said external DNS to said LAN via said local connection to said router to respond to said

request for a numeric address when said domain name requested is not on said list

(Column 6, lines 15 – 29).

Bhatia does not explicitly indicate a list of domain names looked up on an

external DNS corresponding attribute data and that the DNS relay module uses said list

and attribute data without connecting to said external DNS when resolving said domain

name.

Allard teaches a network device that connects a LAN and remote network which

includes a proxy name cache (Figure 2, elements 14 and 54). The network device

includes a DNX Proxy name cache that maintains a list of domain names looked up on

an external DNS corresponding attribute data and uses said list and attribute data

without connecting to said external DNS when resolving said domain name (Column 16,

lines 60 – Column 7, line 5).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Allard's teaching in Bhatia's system in order to allow Bhatia's

system to allow the system to reduce the number of times the network device needs to

query the name server (Column 8, lines 41 – 49).

Regarding claim 2, Bhatia teaches a network modem device as claimed in claim

1, wherein said attribute data is an IP address (Column 6, lines 4 – 5).

Regarding claim 3, Bhatia teaches a network modem device as claimed in claim

1, wherein said attribute data identifies a domain or host name as a local station on said

LAN and said, DNS relay module, when said domain or host name Is identified as a

local station on said LAN, replies locally to said request (Column 6, lines 1 – 18).

Regarding claim 4, Bhatia teaches a network modem device as claimed in claim

1, wherein said remote network connection is a connection to at least one ISDN channel

(Column 4, lines 36 – 39).

Regarding claim 5, Bhatia teaches a network modem device as claimed in claim

4, wherein said router is connected to two ISDN channels: one for the intranet and one

for the Internet (Column 5, line 64 – Column 6, line 1).

Regarding claim 6, Bhatia teaches a network modem device as claimed in claim

3, wherein said DNS relay module listens to NetBIOS Over IP packets of information on

said LAN, extracts local computer names and associated IP addresses from said

packets and adds said computer names and associated IP addresses to said list of

domain names (Column 4, lines 56 – 61).

Regarding claim 8, Bhatia teaches the device according to claim 1, wherein said

device is a digital network modem (Column 4, lines 36 – 39).

Regarding claim 9, Bhatia teaches the device according to claim 8, wherein said device is an ISDN modem (Column 4, lines 36 – 39).

Regarding claim 13, Bhatia teaches a method for relaying DNS requests on a LAN connected through a router to a remote network by a network modem device (Column 4, lines 36 – 39), comprising: a Domain Name Service (DNS) relay module (Column 6, lines 11 – 14) receiving a domain name request via said router having a LAN interface connected to said LAN (Figure 1, element 340; Column 14, lines 19 – 20), a local connection to said DNS relay module and a network connection to said remote network, on said local connection, for a numeric address in response to a domain name (Column 6, lines 1 – 18); said DNS relay module using a local store containing a list of domain or host names and attribute data to respond to said request when said domain name requested is on said list (Column 6, line 1 – 8), wherein said list comprises a list of host names declared on said LAN with corresponding attributed data (Column 6, lines 1 – 8); and said DNS relay module generating a DNS request and transmitting said DNS request to an external DNS on said remote network via said local connection to said router, and said DNS relay module returning a reply from said external DNS to said LAN via sold local connection to said router to respond to said request for a numeric address when said domain name requested is not on said list (Column 6, lines 15 – 29).

Bhatia does not explicitly indicate a list of domain names looked up on an external DNS corresponding attribute data and that the DNS relay module uses said list and attribute data without connecting to said external DNS when resolving said domain name.

Allard teaches a network device that connects a LAN and remote network which includes a proxy name cache (Figure 2, elements 14 and 54). The network device includes a DNS Proxy name cache that maintains a list of domain names looked up on an external DNS corresponding attribute data and uses said list and attribute data without connecting to said external DNS when resolving said domain name (Column 16, lines 60 – Column 7, line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Allard's teaching in Bhatia's system in order to allow Bhatia's system to allow the system to reduce the number of times the network device needs to query the name server (Column 8, lines 41 – 49).

Regarding claim 14, Bhatia teaches a method as claimed in claim 13, wherein said attribute data identifies a domain name as a domain name for a device on said LAN (Column 6, lines 15 – 18).

Regarding claim 15, Bhatia teaches a method as claimed in claim 13, wherein said generating comprises requesting a numeric address on said external DNS and responding to said request with a numeric address corresponding to said domain or host name (Column 6, lines 4 – 29).

Regarding claim 16, Bhatia teaches a method as claimed in claim 13, wherein said attribute data is an IP address (Column 6, lines 4 – 5).

Regarding claim 17, Bhatia teaches a method as claimed in claim 14, wherein steps of listening to NetBIOS Over IP packets of information, extracting local computer

names and IP addresses from said packets and adding said computer names and IP

addresses to said list of domain names (Column 4, lines 56 – 61).

Regarding claim 18, Bhatia teaches a method as claimed in claim 17, wherein

said list of computer names declared on the LAN is automatically built using packets of

information sent by stations on said LAN using NetBIOS Over IP protocol in which said

station name and IP address is available (Column 4, lines 56 – 61; Column 6, lines 20 –

23).

Regarding claims 11 and 21, Bhatia the device according to claims 1 and 13,

wherein said external DNS is one of a group of external DNS (Column 6, lines 5 – 6).

Regarding claims 7 and 19, Bhatia teaches a network modem device as

claimed in claims 2 and 13.

Bhatia does not explicitly indicate that said list is a list of domain names looked-

up on the external DNS, and said DNS relay module automatically adds to said lift of

domain names looked-up on the external DNS, an entry corresponding to said reply

from said external DNS.

Allard teaches a network device that connects a LAN and remote network which

includes a proxy name cache (Figure 2, elements 14 and 54). The network device

includes a DNS Proxy name cache that maintains a list of domain names looked up on

an external DNS corresponding attribute data and said DNS relay module automatically

adds to said list of domain names looked-up on the external DNS, an entry

corresponding to said reply from said external DNS (Column 16, line 64 – Column 7,

line 5; lines 8 – 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Allard's teaching in Bhatia's system in order to allow Bhatia's system to allow the system to reduce the number of times the network device needs to query the name server (Column 8, lines 41 – 49).

Regarding claims 12 and 22, Bhatia teaches the device as claimed in claims 1 and 13.

Bhatia does not explicitly indicate said list of domain names and attribute date has an expiry date and time, and said DNS relay module comprises a mechanism for requesting from an external DNS a newly fetched numeric address for said domain name when a next request for said domain name will be received, for restoring said newly fetched numeric address as the attribute data for said domain name In said list and for refreshing said expiry date and time

Allard teaches that said list of domain names and attribute date has an expiry date and time, and said DNS relay module comprises a mechanism for requesting from an external DNS a newly fetched numeric address for said domain name when a next request for said domain name will be received, for restoring said newly fetched numeric address as the attribute data for said domain name In said list and for refreshing said expiry date and time (Column 9, lines 21 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Allard's teaching in Bhatia's system in order to allow Bhatia's system to allow the system to reduce the number of times the network device needs to query the name server (Column 8, lines 41 – 49).

Response to Arguments

Applicant's arguments filed December 23, 2005 have been fully considered but they are not persuasive.

The applicant argues that the reference, Bhatia does not disclose a list which is used to respond to DNS requests. The examiner disagrees, in Column 5, line 66 – Column 6, line 8, the reference Bhatia discloses a list of providers, ISPs and other host names to use in order to respond with address information, while the reference does not disclose a list of domain names previously searched for, it does have a list of domain names and host names and uses them to respond to requests.

The applicant also argues that the reference Allard is non-analogous, that the cache is operating differently than the same invention by not returning address information to the requesting node when the DNS is accessed. The examiner disagrees, the reference, Allard, is being relied upon to improve the DNS cache storage in the reference Bhatia. In Bhatia, the device checks the local static cache to see if it can handle the DNS request, if not it accesses a remote server to resolve the request and return that result to the local node (Column 6, lines 1 – 29), what Bhatia lacks is an idea of updating the DNS based upon the requests in which it has resolved. Allard discloses a network device that resolves DNS request from local nodes, which is analogous to the function that the device in Bhatia is performing, with the added feature of updating a local DNS cache based upon DNS request that is used to a name server, which is not part of the network proxy device (Column 16, line 64 – Column 17, line 5),

where the motivation to combine this feature of the device Allard to the network device

in Bhatia would improve the number of time they have to access the name server or

DNS server (Column 8, lines 41 – 49) and reduce the process of entering data into a

static DNS (Column 16, lines 16 – 40).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kevin Bates whose telephone number is (571) 272-

3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

KB

KB
March 7, 2006

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER